“Quick Review on Rabies Disease”

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Message on World Rabies Day 28 September 2012

September 28 is World Rabies Day, a global health observance that seeks to raise awareness about rabies and enhance prevention and control efforts. World Rabies Day is an excellent time to Quick Review on Rabies Disease the steps that help prevent and control rabies, such as vaccinating pets and avoiding wildlife that typically transmit rabies,
Rabies is a disease that naturally affects only mammals. Mammals are warm-blooded animals with fur. Lots of farm animals like cows and horses are mammals, and so are wild animals like foxes and skunks, raccoons and bats. Birds, snakes, and fish are not mammals, so they can’t get rabies and they can’t give it to you.

Rabies is a viral infection that affects the nervous system of mammals. It invariably causes swelling of the brain and death after a relatively short illness.

- General sickness
- lots of drool or saliva
- an animal that bites at everything
- an animal that's having trouble moving or may even be paralyzed
Life Cycle:

Rabies viruses move from the site of entry, such as through a wound, and are transported along nerve fibers towards the spinal cord and ultimately the brain, where the virus undergoes replication.

Abnormal behavior results from the effects of viral infection in nerve tissues.

From the brain, rabies virus is further spread to other organs via the nervous system.

The salivary glands, located in the tissues of the mouth and cheeks, receive high concentrations of virus, making saliva an effective medium for virus transfer when the infected animal bites another animal.

Symptom Of Rabies

- Prodromal stage:
  - mild & non specific symptoms
  - eg: slight fever (100 F to 120 F), chills, malaise, headache, anorexia, sore throat etc.
  - usually occur between 2-10 days
  - Specific early symptoms: local/radiating pain, burning etc

- Acute neurological/excitation phase:
  - lasts for 2-7 days
  - symptoms: nervousness, anxiety, agitation, marked restlessness etc.
  - impairment of cranial nerve after virus replicated in brain

- Coma/terminal phase:
  - generalized flaccid paralysis
  - patient will undergo peripheral vascular collapse, coma and finally death
How control of rabies disease

1. Vaccinate pets
2. Vaccinate at risk people
3. Vaccinate forest animals

Rabies in the dog

Dogs show either of the two types of rabies.

- A dog with the furious or mad type of the disease will run around and bite anything. The eyes become red and saliva drips from the mouth.
- A dog with the dumb or quiet type of the disease cannot move. It looks as if it has a bone stuck in the mouth and saliva drips from the mouth.

Rabies in the dog lasts about 10 days before the animal dies. If the animal does not die after this length of time then it may not be suffering from rabies.
What to do with a biting dog

The dog must be shot and if it has bitten anybody, they must be taken to a hospital immediately for vaccination.

Rabies in sheep, goats and cattle

Rabies is characterised by the animals becoming restless and excited. They may bite themselves and saliva drips from the mouth. The most important sign in cattle is that the animal bellows (calls) very frequently and with strange sound. The animals will become paralysed and die.

Rabies in the horse and camel

The horse will show the furious (mad) type of the disease. It will kick and bite and show signs similar to colic. The animal will die after paralysis of the back legs. In the camel the signs of rabies are similar to those shown by an animal in the rut.

What is Street virus?

The name is given to those strains of rabies virus occurring in animal under natural condition they are antigenically identical but differ in term of virulence.

What is fixed virus?

After variable number of intracerebral passage in animal street virus are modified this procedure produces a number of irreversible changes in the histological properties of virus.
How is rabies diagnosed?

Demonstration of negri bodies’ virus neutralization test in cell culture. FAT Rapid flour sent Focus Inhibition Test

Name of Vaccines Of rabies?

1. Pastures KOH desiccated rabbit spinal cord vaccine
2. Sample phenol inactivated fixed virus vaccine
3. Flurry avinized virus vaccine
4. Duck embryo vaccine
5. Cell culture vaccine
6. Purified subunit rabies virus vaccine
7. Molecular vaccine

Multiple choice Question & Answered

1. Reservoir of rabies disease
   - Wild animal
   - Frog
   - Alligator

2. Vectors of rabies disease
   - Wild animal and unvaccinated dogs and cats.

3. Minor Source of rabies disease
   - Aerosol in Bat caves containing rabid bats.

4. Family of Rabies Virus
   - Family Rhabdoviridae

5. Genera of rabies virus?
1. Genera layssa Virus

6. Rhabdo mean
   - Rhabdo Mean Rod

7. Lysaa Mean
   - Mad

8. Susceptible host of rabies disease?
   - Domestic dog and cat

9. Rabies is the oldest disease known to
   - Mankind.

10. Is an immunized person totally protected if bitten by a rabid animal?
    - No

11. Can a pregnant woman receive rabies vaccine if exposed to rabies?
    - Yes

12. Can the vaccine cause rabies?
    - No

13. Meat Edible
    - No

14. What causes rabies?
    - a worm
    - a virus
    - a bacteria

15. Which of these animals can get rabies?
    - a frog
    - an alligator
16) What should you do if you are bitten by an animal?

- put a bandage on the bite and wait to see if you start to feel bad
- wash out the bite really well and go to the doctor
- take your temperature every hour

17) If you see an animal that is acting strangely, what should you do?

- call your local animal control officer to catch and help the animal
- try to catch it to see if you can help
- just walk away

18) Rabies is spread by:

- saliva
- blood
- tears

19) If someone is bitten by an animal with rabies, how long before rabies develops?

- one or two days
- one or two weeks
- one or two months